

REMARKS

This Amendment is in response to the Office Action mailed July 28, 2009. With this Amendment Claims 1–16, 19, 31 and 34 are amended and the remaining claims are unchanged. This Amendment is filed concurrently with a Petition for Revival of an Application for Patent Abandoned Unintentionally Under 37 CFR 1.137(b) and a Request for Continued Examination. Reconsideration and withdrawal of the rejections are respectfully requested in view of the following remarks.

I. Claim Amendments

In this Amendment claims 1, 16 and 31 are amended to change the language as follows:

Claim 1 now recites, in part, “applying a geometric three plane model to distinguish non–fronto–parallel matched moves from occluded moves between adjacent pixels in the stereo disparity model”;

Claim 16 now recites, in part, “distinguishing between non–fronto–parallel matched moves and occluded moves between adjacent pixels within a geometric three plane model, the geometric three plane model including a right occluded plane, a left occluded plane and a matched plane, the distinguishing between non–fronto–parallel matched moves and occluded moves including biasing to keep runs of non–fronto–parallel matched pixels or occluded pixels together”;

Claim 31 now recites, in part, “the dynamic programming module further configured to apply the geometric three plane model to distinguish between non–fronto–parallel matched moves and occluded moves between adjacent pixels in the stereo disparity model”.

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This Amendment is presented in response to the Examiner's comment on page 3 of the Office Action to more closely capture the dynamic programming used to improve occluded regions in stereo images. Support for this Amendment can be found at least at paragraphs 49 and 51 of the Specification. No new matter is presented. Entry is respectfully requested.

II. Rejections under §101

In the Office Action Claims 1 – 15 were rejected as purportedly not falling within one of the four statutory categories of invention enumerated in 35 U.S.C. §101. Although Applicant respectfully disagrees with the rejection, in the interest of furthering prosecution, Applicant has amended Claims 1 – 15 to recite a “computer-implemented method” to thereby tie the claimed method to a particular apparatus. Applicant believes that the claims are now in allowable condition and such allowance is respectfully requested.

III. Rejections under §103

In the Office Action Claims 1,2, 4, 5, 31, 32, 34 and 35 were rejected under 35 U.S.C. §103(a) as purportedly being unpatentable over Roy , U.S. Patent No. 6,046,763 (hereinafter “Roy”), in view of Buhrke et al, U.S. Patent No. 6,006,181, (hereinafter “Buhrke”). The Applicant has reviewed the cited references and must respectfully disagree.

In response to the Applicant's previous amendments, the Examiner added the Buhrke reference and asserted that “Buhrke discloses using a three-layer graph for dynamic programming (see figure 2 and column 3 lines 54–57).” The Applicant

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respectfully maintains the position that Buhrke is not applicable to the present claims for at least two reasons.

A. Inapplicable reference

In this response the Applicant respectfully maintains the assertion that Buhrke is inapplicable as a reference. First of all, the Applicant notes that Buhrke is directed to the area of speech recognition while Roy and the present claims are directed to the area of image processing. As such the Applicant respectfully submits that one of ordinary skill in the art of image processing would not consider a teaching in the speech recognition arts as relevant to image processing. Specifically, the “graphs” shown in Buhrke have nothing to do with images and the disclosures therein are not transferable to images.

Further, the three layers shown in Buhrke relate to various portions of speech recognition and are independent from each other. Based on the Applicant’s understanding of the references, the combination would somehow be an image processing system that used graphs from speech recognition as a geometric three plane model. However, the Applicant cannot determine what modifications would be necessary to allow the system (and hence the three models) of Buhrke to function as an image processing system. The Office Action has not provided any description of how this could be done. Therefore, the Applicant submits that the Buhrke reference is so different from the Roy references in both function and purpose that one of ordinary skill in the image processing arts would not be able to transfer the teaching of Buhrke to Roy.

Also, such a proposed combination of a speech-based system as described in Buhrke with an image-based system as described in Roy would not yield predictable

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results. Nor has the Examiner made any showing what, if any, results would occur with such a combination, except to rely on the benefit of hindsight in asserting that the combination would result in Applicant's own disclosed claims. Accordingly, it would not have been "obvious to try" combining Roy and Buhrke.

Furthermore, modifications to either Roy or Buhrke that would be necessary to combine the two references would likely render one or both of Roy or Buhrke unsatisfactory for their intended purposes and/or change the principle of operation of the references. For at least the foregoing reasons, the Applicant respectfully submits that as there is no rational reason to combine the references, the present claims are non-obvious over the combination of Roy and Buhrke.

B. Combination fails to disclose all elements

1. Claims 1 and 31

Even assuming *arguendo* that there is a rational reason to combine the Roy and Burke references, the Applicant respectfully submits that the cited combination fails to disclose all of the features of the claims in their entirety. Specifically, Claim 1 as amended recites "... a geometric three plane model to distinguish non-fronto-parallel matched moves from occluded moves between adjacent pixels...". The Examiner admitted in the Office Action that Roy does not disclose this feature, and asserted that Buhrke disclosed this feature. Further, the Examiner previously suggested that the Applicant more clearly indicate that the planes are geometric, which the Applicant has done in this Amendment.

Buhrke discloses using three layers in a wave decoder for speech recognition. These three layers include a dynamic programming network layer, a phone network

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layer and a word network layer. Each of these layers provides a separate decoding function. However, these three layers are not a geometric three plane model as recited in Claim 1.

Specifically, the planes in the present claims are geometric planes and not three sliced layers of a network architecture. Further, these layers of a network architecture cannot be converted in any way to the geometric three plane model of the present claims. Therefore, the Applicant respectfully submits that the combination of Roy and Buhrke do not disclose the features of claim 1 in its entirety. Thus, Claim 1 is believed allowable over the cited combination. Independent Claim 31, as amended, includes similar features and is believed allowable over the cited combination for the same or similar reasons.

2. Claim 16

In the Office Action, Claims 16, 17, 19 and 20 were rejected under 35 U.S.C. §103(a) as purportedly being unpatentable over Roy, in view of Burhrke in further view of Yoshigahara et al., U.S. Patent No. 7,015,951 (hereinafter "Yoshigahara"). The Applicant has reviewed the cited combination and must respectfully disagree.

Independent Claim 16, as amended, includes features similar to the features of independent Claim 1. For reasons similar to those discussed above claim 16 is believed allowable over the cited combination. The addition of the Yoshigahara does not remedy the deficiencies. Therefore, the cited combination cannot disclose the features of Claim 16, as amended, in its entirety.

Furthermore, Claim 16 has been amended to recite, in part, "biasing to keep runs of non-fronto-parallel matched pixels or occluded pixels together". The Applicant has

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reviewed the cited combination of Roy, Buhrke and Yoshigahara and can find no teaching or reasonable suggestion of “biasing” as recited in Claim 16. Reconsideration and withdrawal of the rejection are respectfully requested.

3. Dependent claims

In the Office Action, dependent Claims 3, 6–15, 29, 30 and 32–45 were rejected under 35 U.S.C. §103(a) as purportedly being unpatentable over Roy in view of Buhrke in further view of Chupeau U.S. Patent No. 5,727,078, Usami, U.S. Patent No 4,982,438, Chen, U.S. Patent 6,556,704 or Anandan, U.S. Patent 6,198,852. In the interest of simplifying prosecution of the instant application, the Applicant’s reply focuses on the independent claims. Applicant’s decision not to address differences between the cited reference(s) and every claim limitation of the independent claims or every comment made by the Examiner in regards to the independent claims should not be considered as an admission that Applicant concurs with the Examiner’s interpretations and assertions regarding the independent claims.

Also, the patentability of each dependent claim is not necessarily separately addressed in detail. However, Applicant’s decision not to address the differences between the cited reference(s) and each dependent claim should not be considered as an admission that Applicant concurs with the Examiner’s assertions regarding the patentability of the dependent claims over the cited reference(s).

Therefore, the Applicant submits that dependent Claims 2–15, 17–30 and 32–45 are allowable at least based on their dependency from allowable independent claims. Reconsideration and withdrawal of the corresponding rejections are respectfully requested.

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IV. CONCLUSION

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and allowance of the pending claims are respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

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If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,

Microsoft Corporation

Date: March 16, 2010

By: /Damon A. Rieth/

Damon A. Rieth Reg. No.: 52,167
Attorney for Applicants
Direct telephone (425) 421-2377
Microsoft Corporation
One Microsoft Way
Redmond WA 98052-6399

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I hereby certify that this correspondence is being electronically deposited with the USPTO via EFS-Web on the date shown below:

March 16, 2010
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/Noemi Tovar/
Noemi Tovar

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